

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION
STRUCTURE FOR WATER CONTROL – METAL FABRICATION,
CLEANING, PAINTING AND INSTALLATION
CODE 587MF**

1. SCOPE

The work shall consist of furnishing, fabricating, cleaning, painting, and erecting metal work, including the metal parts of composite structures.

2. DETAILS OF CONSTRUCTION

The metal work shall be constructed of the material and to the dimensions as shown on the drawings.

Galvanized items shall not be cut, welded, or drilled after the zinc coating is applied.

3. PROTECTIVE COATINGS

The brand names listed are meant to be descriptive, not restrictive. Other brands may be available that are equally acceptable.

a. Surface Preparation.

Surfaces to be painted shall be thoroughly cleaned prior to the application of the paint. All grease and oil shall be removed from the metal surface by steam cleaning or by solvent cleaning. All dirt, surface rust, and loose scale shall be removed by wire brushing, flame cleaning, use of rotary abrading tools, or light sand blasting.

b. Metal Priming

Zinc-coated (galvanized surfaces) – Items specified to be galvanized shall be completely fabricated for field assembly before the application of the zinc coatings. The metal priming paint for use on galvanized or zinc surfaces shall be a zinc dust-zinc oxide primer conforming to Federal Specification TT-P-641 (Sherwin-Williams Galvanized Iron Primer, B50A1 or equal).

Surfaces other than zinc-coated – The metal priming paint for use on all surfaces shall meet Federal Specification TT-P-636

or be equal to the following manufacturers' brands:

- (1) Wellborn TT-P-645 Primer
- (2) Sherwin-Williams Kem-Kromik Primer B50W1 (white) or B50N2 (brown), or Kem-Flash E61A45
- (3) Rust Oleum 7773 Primer or 773 Industrial Primer

c. Field Coats.

Top coats shall be equal to the following manufacturers' brands or meet Federal Specification No. TT-E-489 or TT-E-529:

- (1) Wellborn Qwik Gloss, All Purpose Enamel, or #90 Semi Gloss
- (2) Sherwin-Williams Gloss Metalastic II Enamel, B53 Series, or Industrial Enamel, B54 Series
- (3) Rust-Oleum New Color Horizons High Gloss Finishes, or Rust-Oleum Topcoat (i.e., 7771-Sand)

If aluminum paint is specified, it shall meet AASHO M69-70 Specifications or be equal to the following manufacturers' brands:

- (1) Sherwin-Williams Silver-Brite No. B59S2
- (2) Pittsburgh No. 22-30 Metaleaf Aluminum

d. Paint System

The system shall consist of the preparation of the surfaces to be primed and the application of one priming coat of metal priming paint and two or more top coats of field paint as necessary to provide a total dry paint film thickness of 6 mils.

e. Application of Paint

Surfaces shall be painted immediately after preparation.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.
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Priming coats and top coats may be applied by brush or spray.

The elapsed time between the application of the first and second prime coats shall not exceed 60 hours.

The finished surface of each coat shall be free from runs, drops, ridges, laps, or excessive brush marks, and shall present no variation in color, texture, and finish.

f. Atmospheric Conditions

Paint shall not be applied when the temperature of the item to be painted or of the surrounding air is less than 45°F. Painting shall be done only when the humidity and temperature of the surrounding air and the temperature of the metal surfaces are such that evaporation rather than condensation will result.

4. MEASUREMENT

Metal fabrication, cleaning, painting, and installation will be measured by the job.